

E-002/CN-91-19 ORDER MODIFYING RADIATION MONITORING PLAN

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair
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In the Matter of an Application for a Certificate
of Need for Construction of an Independent
Spent Fuel Storage Installation

ISSUE DATE: September 9, 1994

DOCKET NO. E-002/CN-91-19

ORDER MODIFYING RADIATION
MONITORING PLAN

PROCEDURAL HISTORY

I. History of the Radiation Monitoring Plan

On August 10, 1992 the Commission issued its ORDER GRANTING LIMITED CERTIFICATE OF NEED in this case. The Order authorized Northern States Power Company (NSP or the Company) to build an earth-sheltered dry cask nuclear waste storage facility at its Prairie Island nuclear power plant. The facility was authorized to store up to 17 casks containing spent fuel from the two Prairie Island reactors until the federal Department of Energy transported the fuel to a national nuclear waste storage facility.

The August 10 Order placed conditions on the certificate of need, including Company compliance with its representation that radiation exposure from the facility to the person living nearest the plant would at no point exceed .054 millirem per year. Order, at 32 and 34. The Order also required the Company to prepare a plan for monitoring radiation from the facility after consulting with the Minnesota Department of Health and the Prairie Island Indian Community. On October 9, 1992 the Company filed its proposed plan.

The Indian Community and the Department of Health filed comments supporting the plan in part and urging specific changes to it. On February 26, 1993 the Commission issued an Order approving most of the plan and requiring further filings. That Order resolved most of the disputed issues and required additional filings on three issues:

- (1) the Department of Health's recommendation to require the Company to install four pressurized ion chamber measurement devices;
- (2) the Department of Health's request for Company funding of its participation in the nuclear radiation monitoring program;
- (3) appropriate procedures for disseminating information about the storage facility to the public, both in response to routine inquiries and in the event of an actual or perceived emergency.

The parties made the additional filings in March and April, 1993. The Commission deferred action on the matter following a Court of Appeals decision finding legislative approval necessary for construction of the facility.

Legislative approval was granted during the 1993 legislative session. The matter came before the Commission again on August 11, 1994.

FINDINGS AND CONCLUSIONS

II. Pressurized Ion Chambers

A. Positions of the Parties

The Department of Health recommended placing four pressurized ion chambers (PICs) within the berm surrounding the dry cask storage facility to measure radiation on an ongoing basis. PIC readings would be transmitted continuously by telemetry to Health Department offices off-site. The Department emphasized that this system would provide continuous, real-time monitoring of radiation levels and would allow the agency to reassure the public at any time about the safety of the facility. The Department also claimed the PICs would enhance its ability to determine whether the facility is operating within the .054 millirem per year limit.

The Indian Community concurred in the Department of Health's recommendation.

The Company claimed the PICs would merely duplicate the functions of other monitoring devices and that the expense and increased worker exposure they would entail were not justified. The Company argued the likelihood of an accident-related release of radiation was virtually nil, making PICs superfluous. Finally, the Company claimed the PICs were far more delicate than the casks and would not survive any cataclysmic event capable of causing a radiation leak.

At oral argument the parties disclosed that in settlement discussions they had tentatively agreed to the installation of two PICs, but that negotiations had run aground on the issues of funding and data transfer.

B. Commission Action

The Commission finds that the additional margin of security and public confidence provided by PIC monitoring justifies its expense and will require the Company to install two PICs, together with the telemetry links recommended by the Department of Health. The Commission requires two PICs, instead of the four originally requested, because the Department of Health and the Indian Community determined during attempts at settlement that two would suffice.

The Commission appreciates the Company's position that it has already agreed to install monitoring systems with appropriate levels of redundancy, that these systems are adequate, and that there must be an end at some point to duplicative monitoring. At the same time, however, it is clear that PIC monitoring adds features the other systems lack, at relatively low cost,¹ with no significant increase in worker exposure to radiation.²

¹ The Company estimates the initial capital outlay for a four-PIC system at \$190,000, with annual costs thereafter under \$35,000. The two-PIC system ordered herein should cost substantially less.

² The Company mentioned the increased worker exposure required for PIC installation, calibration, and maintenance as an argument against PIC monitoring, but cited no facts giving cause for concern. All record evidence supports the Department of Health's position that the exposure required for PIC monitoring would be well within established levels of acceptable

PICs measure radiation levels continuously and allow technicians to immediately detect any anomalies. The monitoring system approved to date, which the Company considers adequate, measures average radiation levels at three-month intervals. The assumption is that radiation levels will not increase as long as the cask seals and the enclosed tubes holding the nuclear fuel are intact. Cask seals are checked (by checking inter-seal pressure) every twelve hours.

Clearly, PICs will increase the precision with which radiation levels can be monitored and increase the likelihood that any abnormalities will be promptly detected. The Company considers this level of precision unnecessary, given the inherent safety of the facility and the extreme unlikelihood of any release of radiation. The Commission shares the Company's views on the safety of the facility, but not on how that affects monitoring issues. Even the Company, after all, would not argue that the safety of the facility makes monitoring unnecessary.

The issue, then, is how much monitoring is reasonable, given the degree of risk posed by the facility, the costs of monitoring, and the obligation to maintain public confidence in the facility's safety. The Commission finds that this public interest equation favors installing the PIC monitors.

III. Funding Issues

The Minnesota Department of Health asked the Commission to order the Company to pay the costs of its participation in the nuclear radiation monitoring program. The Indian Community supported the Department's request.

The Company opposed the request for three reasons: (1) the Department's participation in the program is voluntary; (2) the federal government has preempted state regulation of nuclear safety issues; (3) the Department of Health can neither require nor accept reimbursement for these costs.

The first two claims, which basically treat the Department of Health as an interloper in a federal matter, are inconsistent with the Company's previous public statements, with its posture throughout this case, and with the Order granting the limited certificate of need. That Order accepted the Company's stated willingness to work with the Department of Health in developing a radiation monitoring plan:

In the course of this proceeding NSP made representations, in addition to those in its application and testimony, about how it intended to construct and operate the proposed facility. . . . The Commission considers these representations integral to the Company's proposal and binding on the Company. The representations are set forth below. . . .

. . . . The Company assured all parties that the radiation exposure of the nearest Prairie Island resident would never exceed .054 millirem per year. Finally, the Company stated its willingness to consult with the Department of Health and the Indian Community to develop a procedure for monitoring actual radiation doses from the facility over the life of the project. . . .

ORDER GRANTING LIMITED CERTIFICATE OF NEED at 32.

The Company did not challenge the Order's acceptance of its commitment to work with the Department of Health and the Indian Community on reconsideration or appeal. Any preemption

occupational exposure.

concerns arising from that commitment or its acceptance should have been raised earlier.

As to the Health Department's ability to accept reimbursement, the Commission agrees with the Department that the statute under which it accepts miscellaneous monies for specific projects should cover this project as well:

The state commissioner of health may receive and accept money, property, or services from any person, agency, or other source for any public health purpose within the scope of statutory authority. All money so received is annually appropriated for those purposes in the manner and subject to the provisions of law applicable to appropriations of state funds.

Minn. Stat. § 144.074 (1992).

The Commission will therefore require the Company to reimburse the Health Department for the costs of its participation in the nuclear radiation monitoring program. The Commission will cap annual reimbursable amounts at \$35,000, consistent with Department representations that such amounts will be adequate.

IV. Public Information Issues

The February 26 Order invited the parties to discuss procedures for disseminating information about the facility to the public, both in response to routine inquiries and in the event of an actual or perceived emergency. The Order also required the parties to make filings detailing what they considered adequate public information procedures.

On March 30, 1993 the parties made joint filings setting forth proposed procedures for sharing information between themselves and for communicating with the public. These procedures reflect careful planning and provide a workable framework for future communications. They will be approved.

ORDER

1. The Company shall install two pressurized ion chambers with telemetry links to the offices of the Minnesota Department of Health as part of its nuclear radiation monitoring program.
2. The Company shall reimburse the Minnesota Department of Health for its participation in the nuclear radiation monitoring program, with such reimbursement not to exceed \$35,000 per year.
3. The parties' filings on public information and communications issues are accepted and approved.
4. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary

(S E A L)